City of Wenatchee

Volume IV
April 2009

WATER RESOURCES REVIEW

"To create community through responsive leadership and services for the citizens and visitors of the Apple Capital of the World."

Public Works
Environmental Division
1350 McKittrick St., Suite A
PO Box 519
Wenatchee, WA 98807-0519
(509) 888-3200

INSIDE THIS ISSUE:

LAWN WATERING

Overwatering is a problem throughout areas of Wenatchee and can cause significant damage to roads and underground utilities. For example, some homeowners overwater to the extent that the water runs across the sidewalk and into catch basins in the street. These catch basins are designed to catch the flow of stormwater. In some areas these catch basins drain to a stormwater retention pond. In the pond, irrigation water can saturate the ground and reduce the rate at which rainwater and snowmelt can infiltrate.

Another problem with overwatering is the potential to cause erosion below the sidewalks and streets. This ultimately may cause potholes in the road as the road surface shifts to fill voids below the surface.

While most people think a lack of water will damage the lawn, overwatering may cause more damage. It is easy to overwater a turf area. Some potential consequences of overwatering include increased crabgrass, increased disease incidence, shallow rooting, waste of a valuable resource, and higher water bills. In addition, overwatering can cause fertilizers to be flushed away from fast draining, sandy soils resulting in potential groundwater contamination. In clay soils, standing water can displace oxygen, suffocating soil-dwelling microbes and leading to poor soil quality. On the other hand, daily, light irrigation can cause problems with shallow rooting and encourages crabgrass. Water only deeply enough to moisten the desired root zone of the grass, and don't water again until the grass begins showing signs of stress.

To maintain a healthy, dense, green, actively growing turf, it is essential to water a lawn during dry periods. The easiest way to tell if moisture stress is present is to look for footprints on your lawn. When you can see footprints on your lawn, meaning your lawn doesn't spring back up after you have walked across it, water your lawn. Do not

CONTINUED ON PAGE 2

The City of Wenatchee Public Works Department has moved!

Our new address is:

1350 McKittrick Street, Suite A
Wenatchee, WA 98801

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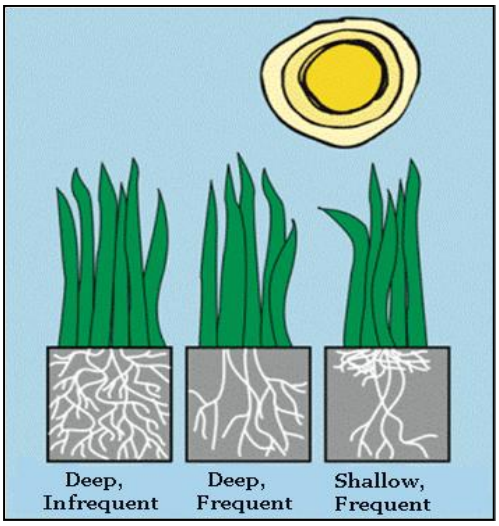
water until you see footprints again. Other signs a lawn needs to be watered include a bluish gray color or wilted, folded, or curled leaves.

Water when the sun will cause the least evaporation. Watering an established turf during midday is not very effective. A large amount of water is lost through evaporation, making it difficult to thoroughly wet the soil. Although not recommended, midday watering does not cause the turf to burn. Watering in the early morning is best. The next best practice is to water in the evening, but do it early enough so the grass is not wet overnight. Grass that remains wet for extended periods can be susceptible to fungal growth.

Cool season lawns, like fescues and bluegrass, naturally go dormant in the heat of the summer. If you practice good watering techniques your healthy lawn will go dormant in the summer and only needs watering every 3 weeks if there has been no rain. In September it will come out of dormancy as thick and green as ever.



Decide before summer heat and drought conditions arrive to either water lawns consistently as needed throughout the season, or let lawns go dormant as conditions turn hot and dry. Do not switch back and forth. In other words, don't let the grass turn totally brown, then apply enough water to green it up, then let the grass go dormant again. Breaking the lawns dormancy actually drains large amounts of food reserves from the plant.

Planning ahead can help you take good care of your lawn and conserve one of the most valuable resources, our drinking water supply.

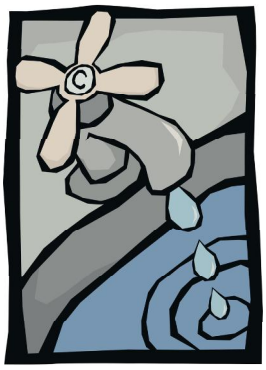
HAVE YOU EVER HEARD A VERY LOUD NOISE OUT IN THE STREET IN FRONT OF YOUR HOUSE, LOOKED OUT AND SEEN THIS?

Well, other than making lots of noise it does provide many essential services. This unique vehicle is a combination jet/vacuum truck which is commonly called the Vactor. Now you are thinking, what does that mean?

A combination jet/vacuum truck can be used in many public works activities. Its primary job is to maintain the City of Wenatchee's sewer and storm systems. On the front of the truck there is an 800 foot reel of 1 inch high pressure jet hose that is used to clean sewer and storm pipes. The jet is capable of producing a 2500 psi stream of water. A large black 8 inch suction hose hangs over the cab of the truck; basically this is a giant vacuum capable of sucking up a 16 pound bowling ball from 20 feet below the surface. The vacuum is used to clean catch basins and remove debris from sewer manholes. The Vactor has a water capacity of 1500 gallons and can hold up to 12 yards of sand and garbage in its debris tank.

On any given day the two-man crew that operates the Vactor may perform a variety of job duties, such as sewer and storm system cleaning, removing water from chambers, excavation for leak repairs, cleaning of tanks at the Waste Water Treatment Plant, and sewer lift station maintenance. As you may now realize, the Vactor is a very valuable asset to the City of Wenatchee's fleet.

So, the next time you are driving down one of our city streets and you see this big piece of equipment in the middle of the road with its safety lights flashing and the crew in safety vests, please slow down and use caution.



A Leaky Faucet ...

Water is a valuable resource. There is a limited supply of water, and an even more limited supply of water fit for drinking. In the City of Wenatchee there is expected to be a 50% increase in the population by 2025. Through conservation and planning, the City is working to make sure there is a sufficient water supply for the future. The City of Wenatchee's drinking water comes from a groundwater source called the Eastbank Aquifer. This aquifer is the largest and most reliable source of groundwater in the Mid- Columbia Region. Protecting and conserving water today helps ensure that there will be clean water to drink in the future. We all need to make sure that we only use as much water as needed. Minimizing water leaks is a simple way to start conserving.

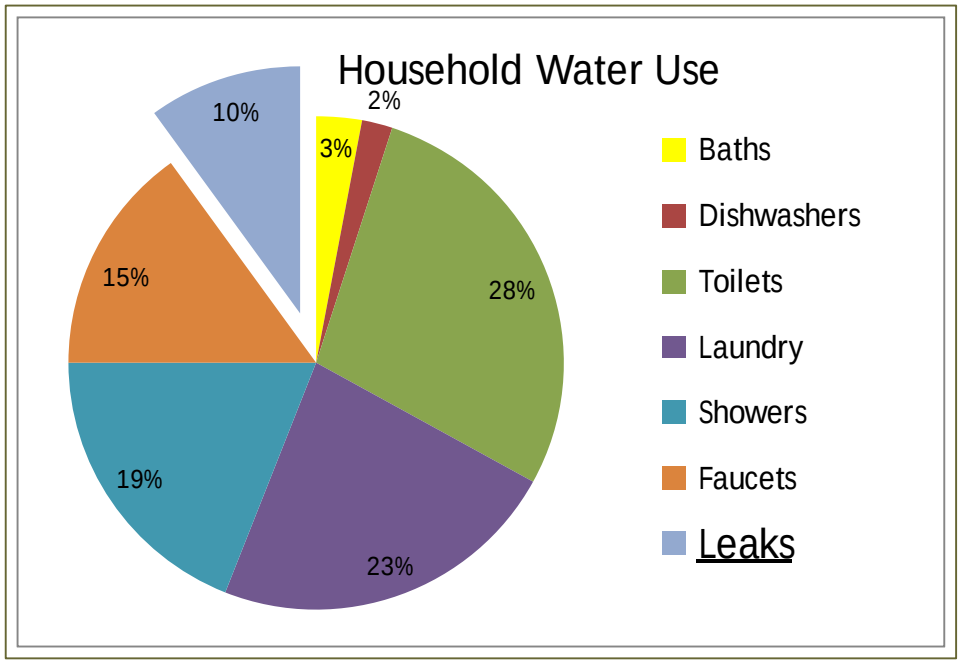
Drips per Minute	Gallons per Month	Gallons per Year
5	22	**263**
20	86	**1051**
50	216	**2628**
70	302	**3679**
100	432	**5256**

Most people know the basic steps to take for saving water:

- Shut off the water while you brush your teeth
- Adjust sprinklers so only your lawn is watered and not the house, sidewalk or street.
- Only run your dishwasher when it is full.
- Sweep your sidewalk instead of washing it with a hose.

Here are a few more ideas that you may have not thought about:

- When filling your bathtub, close the drain first and fill the tub only 1/3 full. The initial burst of cold water can be warmed by adding hot water later.
- Insulate your water pipes. You'll get hot water faster plus avoid wasting water while it heats up.
- Put an empty tuna can on your lawn - when it's full, you've watered about the right amount.
- Use the ice left in your glass to water plants instead of putting it down the sink.
- Drop your tissue in the trash instead of flushing it and save water every time.



At the average use of 185 gallons per day for a household; in one month you will lose 555 gallons. That's enough to fill a hot tub!

Joe's Water Quality Report

Joe Homeowner just finished reading his Consumer Confidence Report from his water purveyor. He was glad to read that his water was considered to be very safe and clean, yet the report listed his water contained a few contaminants. This puzzled Joe. How could the water have contaminants when his glass of water looked clear and tasted great? He also wondered why the water was considered to be safe and clean when it contained contaminants. Joe decided to learn more about the water he drinks.

Joe was pleased to learn that in the State of Washington the Department of Health (DOH) oversees all drinking water systems and runs the drinking water program under the direction of the United States Environmental Protection Agency (USEPA). The DOH specifies what substances must be tested for and how often these samples must be taken. The DOH also reviews all of the results from these tests. If a substance is detected at a level higher than the Trigger Level set by the DOH, the water system is required to take additional samples. The Trigger Level is used as a warning level for the water system. There is another level set by the USEPA called the Maximum Contaminant Levels (MCL). The MCL is the highest permissible concentration of a substance allowed in drinking water, below this level there are no known or expected health risks. If a substance is found above this level the water purveyor must provide public notification along with additional sampling.

Joe looked again at his Consumer Confidence Report. In the past year the water system was tested 300 times to check for the presence of bacteria. All 300 samples were reported as satisfactory, they did not contain bacteria. In the last year the water system tested for 235 possible contaminants, of those only 15 were detected. He felt good knowing that the contaminants found in his drinking water were all below the DOH's Trigger Level and well below the EPA's Maximum Contaminant Level. Joe knew that many of the contaminants found were naturally occurring minerals which, in their trace amounts, help give the water its great taste.

One of the substances detected was nitrates. The Consumer Confidence Report listed that nitrates can come from erosion of natural deposits, runoff from fertilizer use, & leaching from septic tanks. The report listed that nitrates were detected at a level of 0.2 parts per million (ppm), well below the MCL of 10 ppm. In his quest to understand his drinking water better, Joe was now puzzled by the units. Just what is a part per million? Parts per million (ppm) is defined as parts of contaminant per million parts water. Joe had a better time visualizing this amount when he discovered that 1 part per million was the same as adding one drop of food coloring to 13.2 gallons of water. Therefore the amount of nitrate contained in the water was equivalent to 1/5th of a drop of food coloring in 13.2 gallons! Joe was pretty sure that he would not see the color change with that small of an amount of ink and he wondered whether he would notice a color change at the MCL. A MCL of 10 ppm would be equivalent to 10 drops of ink in 13.2 gallons of water, a very small amount even though the DOH considers it a significant amount of nitrate.

Joe looked again at his glass of clear water. He was thankful that there were people who work to ensure that he could turn on his faucet and get a glass of excellent quality water.

1 Part Per Million is the same as:

- 1 drop of water in the gas tank of a compact car, 13.2 gallons
- 1 second in 11.5 days
- 1 penny in $10,000
- 1 car in bumper to bumper traffic from Cleveland to San Francisco

City of Wenatchee

Mayor
Dennis Johnson

City Council
Jim Bailey
Carolyn Case
Gaby Fernandez
Don Gurnard
Mark Kulaas
Doug Miller
Karen Rutherford

City Council Meetings
2nd & 4th Thursday
5:15 PM at City Hall
129 South Chelan Ave

For more information please contact the City Clerk at 888-6204.

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Dale Pipkin

Backflow Prevention and Annual Testing Requirements

The purpose of this article is to help get a better understanding of why we need to test our backflow preventers. The City of Wenatchee relies on approved backflow prevention assemblies to protect the public water system from potentially hazardous cross connections.

First of all, what is a cross connection? A cross connection is a point in a plumbing system where the drinking water supply is connected to a non-drinking water supply such as an irrigation system, swimming pool, or fire sprinkler system. Pollutants or contaminants can enter the safe drinking water system through uncontrolled cross connections when backflow occurs. Backflow is the unwanted flow of contaminants back into the consumer's drinking water. Plumbing codes and State drinking water regulations require cross connections to be controlled by approved methods (physical air gap) or approved backflow prevention valves.

For a backflow prevention valve to provide proper protection, it must be approved for use, designed for the degree of hazard, installed correctly and repaired as necessary. In addition backflow preventers must be tested upon installation and annually thereafter. Valves also need to be tested when repaired or relocated. Testing the valves is a way to assure they are in proper working order.

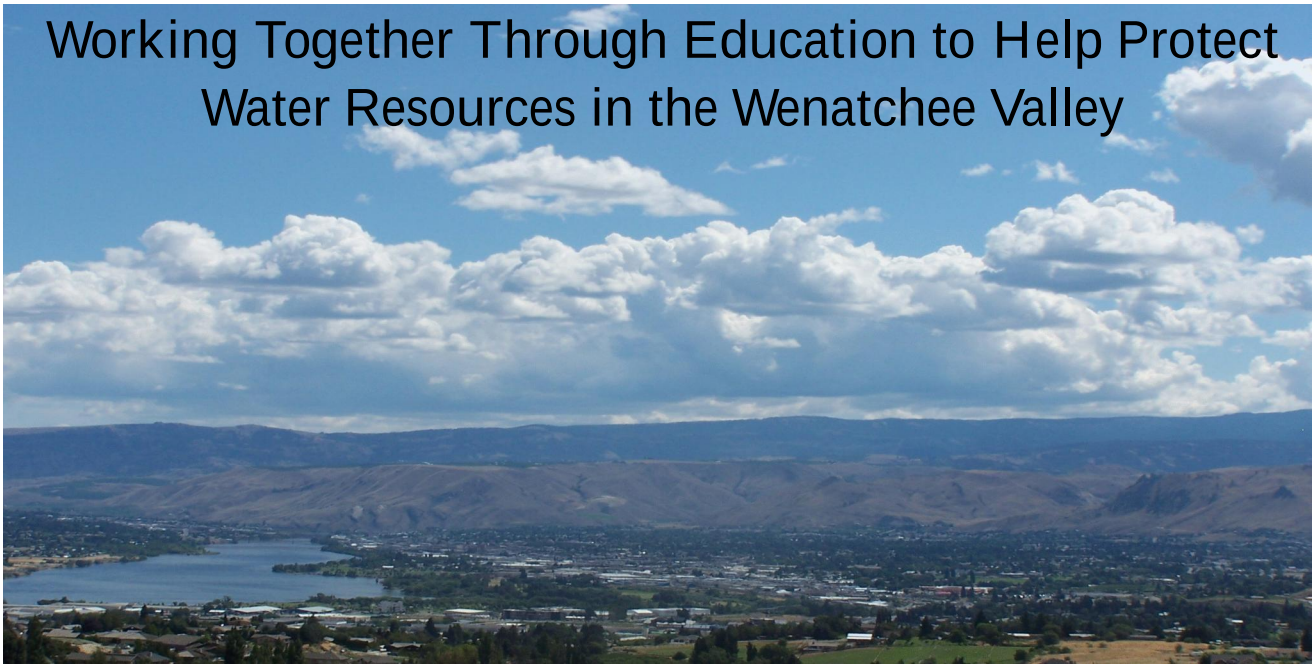
Lawn Irrigation DCVA

Reasons for malfunction include, but are not limited to; freezing, worn parts and debris.

The City sends out test reports a month in advance to allow customers time to contact a Washington State Certified Backflow Assembly Tester (BAT) to perform the test. Within 15 days of completing the test, the BAT or customer must submit a copy of the report to the City of Wenatchee. The test must be completed and reported by the due date listed. If the backflow assembly fails the test, it is the customers responsibility to have it repaired and retested.

The City of Wenatchee is dedicated to locating and eliminating dangerous cross connections. Free inspections of potential cross connections are offered to residents within our water system. Please keep our drinking water safe by eliminating cross connections and maintaining your backflow assemblies.

Working Together Through Education to Help Protect Water Resources in the Wenatchee Valley



Questions and Comments ...

To provide comments or if you have questions regarding this publication, or any of the featured utility programs, please call the City of Wenatchee Environmental Division at 888-3200.

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